

J1
Cmt. concentration that is less than an impurity concentration of the first embedded diffusion layer and is equal to or higher than that of the epitaxial layer, and

wherein a peak position of the impurity concentration of the first embedded diffusion layer resides at a first distance from a surface of the emitter of the first vertical type bipolar transistor and a peak position of the impurity concentration of the second embedded diffusion layer resides at a second distance from a surface of the emitter of the second vertical type bipolar transistor such that the first distance is smaller than the second distance.

J2 SUB
L1 3. (Amended) A semiconductor device according to claim 1,
wherein a bottom of the first embedded diffusion layer is formed at a third distance from the surface of the emitter of the first vertical type bipolar transistor, and

wherein a bottom of the second embedded diffusion layer is formed at a fourth distance from the surface of the emitter of the second vertical type bipolar transistor such that the fourth distance is greater than the third distance.

J3 6. (Amended) A semiconductor device according to claim 1, wherein the substrate is a single substrate, and wherein the impurity concentration of the second embedded diffusion layer is 1×10^{13} to 1×10^{15} .

J4 22. (Amended) A semiconductor device according to claim 1, wherein a peak position of an impurity concentration of the second embedded diffusion layer resides at a distance from the surface of the emitter of the second vertical type bipolar transistor that is approximately equal to a location of the bottom of the first embedded diffusion layer from the surface of the emitter of the first vertical type bipolar transistor.

Please cancel claims 27-29.

Please add the following new claims 30 and 31:

J5 SUB
L1 30. The semiconductor device of claim 1, wherein the first vertical type bipolar transistor is capable of operating at a higher speed than the second vertical type bipolar transistor.

31. The semiconductor device of claim 1, wherein the second vertical type bipolar transistor is capable of operating at a higher voltage than the first vertical type bipolar transistor.